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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,117	08/20/2001	Robert Schmeler	6077-04WOUS	5845

7590 03/21/2008  
McCormick Paulding & Huber  
City Place II  
185 Asylum Street  
Hartford, CT 06103-4102

EXAMINER
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WALBERG, TERESA J

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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03/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/868,117	<b>Applicant(s)</b> SCHMELER ET AL.	
	<b>Examiner</b> Teresa J. Walberg	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-34, 45-50, 61 and 62 is/are rejected.
- 7) ☒ Claim(s) 35-44 and 51-60 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 31-33, 45, 47-49, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al (4,382,585).

Fischer et al disclose a cooling plate (Figs. 1 and 2) for an iron and steel making furnace and method of manufacturing including a copper cooling plate body (1) with at least one cooling duct (3) for a cooling medium, which extends essentially parallel with the back of the cooling plate body (Figs. 1 and 2), at least one preformed externally accessible recess into which the cooling duct opens (at 4), at least one connection piece (5) for a cooling medium connection on the back of the cooling plate body (Fig. 2), a formed piece (4) that is fitted in the preformed externally accessible recess in the cooling plate body so as to form a deflection surface (the formed piece (4) is considered to deflect the fluid, since it causes it to turn) for the cooling medium flowing from the connection piece (5) into the cooling duct (3) or from the cooling duct into the connection piece (Fig. 2), the formed piece being arranged in an axial extension of the cooling duct (Fig. 2), the deflection surface being formed by one of its end faces (Fig. 2), the cooling plate body having a front side, a rear side and an end face (Figs. 1 and 2), the recess axially extends the cooling duct into the end face (Fig. 2), the

connection piece (5) opens from the rear side into the cooling duct (Fig. 2), the formed piece (4) is a plug which is inserted from the end face into the recess and extends to the area where the connection piece opens into the cooling duct to form the deflection surface for the cooling medium in this area (Fig. 2), the at least one cooling duct is a blind bore drilled into the cooling plate body (col. 3, line 6).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 34 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (4,382,585) in view of Stumbough (2,911,235).

Fischer et al discloses a cooling plate having the claimed structure with the exception of the plug having a beveled end which forms the deflection surface. Stumbough discloses a fitting including plug (22) having a beveled surface (28) which forms a deflection surface in a pipe connection (Fig. 1). It would have been obvious in view of Stumbough to use a beveled surface for the plug in the cooling plate of Fischer et al, the motivation being to provide smoother flow of the fluid in the pipes and easier cleaning of the device.

5. Claims 46 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (4,382,585) in view of Stein (5,904,893).

Fischer et al discloses a cooling plate having the claimed structure with the exception of the cooling duct being cast and the at least one cooling duct being formed during casting. Stein discloses a cooling duct which is cast and the at least one cooling duct being formed during casting (see abstract). It would have been obvious in view of Stein to form the cooling plate and ducts of Fischer et al by casting, the motivation being to enable easier manufacture of the device.

6. Claims 35-44 and 51-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's arguments with respect to claims 31-62 have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hille et al is cited to show relevant cooling plate structure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/  
Primary Examiner, Art Unit 3744

/TW/